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**SHORT HISTORY OF THE  
DEVELOPMENT OF  
HAIL INSURANCE  
IN ALBERTA**

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**DECEMBER, 1945**

**The  
Alberta Hail Insurance  
Board**

**703 Fifth Street West  
CALGARY - ALBERTA**



A SHORT HISTORY OF THE  
DEVELOPMENT OF  
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Prepared by  
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In presenting this History the Board is doing so in the light of its own experience, and with the information available to it regarding Hail Insurance plans which have been and are being tried together with various proposals that have been suggested from time to time.

It must be noted that Insurance in general, and Hail Insurance in Alberta in particular, must depend for its success on spreading the risk over not only a large area but also over a considerable period of time.

Hail Insurance, as presently written, differs from most other types of insurance in that the value of the article being insured has no bearing on the contract. The only stipulation for payment of an award on a hailed crop is that the crop must have been harvestable, that is, it must have been a crop which would have yielded more than the cost of harvesting, threshing and marketing. If the insured crop was a harvestable crop prior to the storm, then insurance is paid on a percentage basis in accordance with the percentage of the crop destroyed by hail. For example, a crop insured at the rate of \$10.00 per acre with a 50% damage would have an allowance of \$5.00 an acre regardless of whether it was a 40-bushel crop, a 5-bushel crop, etc. Rates quoted are on a percentage basis of the risk, that is, if the rate were 20% a farmer would pay \$1.00 an acre for insurance of \$5.00 per acre, and similarly if the rate were 4% he would pay .20c an acre for insurance of \$5.00 per acre.

## **Government Insurance**

Hail Insurance operated directly by the Government was available in Alberta until 1911, the first plan prior to the formation of the Province in 1905 being operated by the Territorial Government with headquarters in Regina. The second plan was operated by the Government of the Province of Alberta from 1906 to 1911. No figures are available as to the operation of the plan under the Territorial Government, but the results from 1906 to 1911 were that premiums amounted to \$370,648.00 with losses of \$860,192.00, giving a net loss to the Government, including expenses, of probably \$550,000.00.

The premium rates under this plan of 3¾% for the first three years and 6¼% for the last three years were woefully inadequate, and because of the tremendous loss the Government discontinued the business entirely and began to license companies to carry on business.

## **Private Company Insurance**

Private Hail Insurance Companies have operated with varying success since they started business in 1912. There have been as many as forty or more companies in the field, although we understand that at the present time there are about one-half this number operating. It must be remembered that these companies can get in and out as they see fit, and in any particular year or years some may discontinue operations entirely, later returning to the field when they consider the time opportune to make profits.

The companies had no competition from co-operative organizations in 1912, 1913 and 1937, but in all other years have operated in competition with one form or another of Government sponsored co-operatives.

From the reports of the Superintendent of Insurance we have the results of their operations from 1920 to 1944 inclusive, and these are the figures used in this resume of their operations. The premiums charged during the 25-year period approximate \$21,000,000.00, and the losses paid during that time \$18,000,000.00

As the companies require approximately one-third of their premiums to pay their costs of operation, including commissions to general agents and to local agents, approximately \$7,000,000.00 of the premiums were required for this purpose, leaving only \$14,000,000.00 with which to pay losses. On this basis then the companies have lost \$4,000,000.00 on their operations in the Province during the 25-year period

In the ten-year period from 1923 to 1932 the premiums and losses were almost exactly the same, being in the approximate amount of \$15,000,000.00. This meant that their loss during this period was about \$5,000,000.00. In 1927 the companies paid in losses more than \$1,000,000.00 in excess of their premium income which, combined with their expenses of approximately \$1,000,000.00, left them with a loss of about \$2,000,000.00 in that year.

Even with these losses the companies could continue to operate because of the fact that they are not restricted to the Province, but rather write business in all parts of the continent, not only in Hail Insurance, but also in Fire, Casualty and other classes of insurance. While they do not wish to operate at a loss in any place, they can make up these losses by profits from other parts of the country or from other classes of insurance, whereas, an organization operating within the boundaries of a Province only, does not have this safeguard and must have reserves sufficient to take care of two or three years of losses such as outlined.

It is because of these very heavy losses however, that the companies have restricted their writings to such an extent in this Province. There are many areas where they consider the risk to be too hazardous and refuse to write any hail insurance whatsoever. In all other parts of the Province they have township limits and refuse to accept business beyond a pre-determined level. Furthermore, there are very few parts of the Province where a full cover policy is written, but rather the great majority of farmers are restricted to Deductible policies

## **Mutual Companies**

We have the experience of two Mutual Companies not counting Government sponsored plans, one of which failed almost before it started and the other in the second year of operation. Rates were very little different from those charged by the Private Companies, and both have left the Province entirely with neither having paid out its losses as provided for by the contracts.

## **Compulsory Municipal Insurance**

From 1914 to 1918 insurance was compulsory in twenty-six Municipal Districts with the Hail Insurance Board of Alberta according to a plan as discussed and decided upon by the United Farmers of Alberta and as amended from time to time during that period. During these five years five and one-half million acres were insured with a premium charge of approximately \$2,000,000.00. After losses and expenses were paid there was an apparent

surplus of \$44,000.00. The premium in the first three years was levied against all assessable land within the boundaries of the twenty-six Municipal Districts, while in the last two years a part of the income was raised in this manner and part as a charge on acreage in crop. An average charge of 6% of the risk would have raised the amount necessary to pay the losses and expenses.

The compulsory features of the plan were unpopular and at the request and with the assistance of the U.F.A. the Executive of the Board advocated a plan in which the compulsory features were withdrawn but under which the insurance would be automatic with provisions for withdrawal. This change to automatic insurance met with the approval of the U.F.A., the Association of Municipal Districts and the annual meeting of the Hail Insurance District, and was then presented to the Legislature. Considerable opposition was expressed both to Compulsory and Automatic Hail Insurance Plans in the Legislature by members from the most northerly parts of the Province who claimed that their constituencies were not subject to much damage by hail, and that the farmers there did not wish to carry any insurance.

The Act as finally passed included the automatic features, but provided that withdrawals would be effective until a request had been made for re-inclusion of the crops covered thereunder. It was provided that the Act should not come into force in any Municipal District until a vote had been taken and the ratepayers expressed themselves as being in favor. In all other Municipal Districts it was provided that insurance would be available to the farmers on a voluntary basis. No business was to be written in unorganized or local improvement districts.

## **Automatic Municipal Insurance**

Sixty-seven Municipal Districts voted to come under the provisions of the Municipal Hail Insurance Act as passed by the Legislature in 1918. The sixty-seven Municipal Districts increased only to seventy-two during the operation of the Act, but the districts in which insurance was written under a voluntary plan increased from forty-one in 1919 to seventy in 1923.

During the five years 1919 to 1923 in which the automatic plan was in operation the total premiums amounted to \$7,376,000.00 with losses of \$6,260,000.00 and expenses of \$625,000.00. The rate charged each year was the same over the entire Province and during this period it varied from a low of 5% in 1922 to a high of 12% in 1923 with an average over the five years of 7 4/5%.

Because the farmers where the voluntary plan was operative were so much more satisfied than most farmers in districts with the automatic plan and because of the difficulties of obtaining proper information regarding the acreage in crop, etc., steps were taken in 1923 to do away with the automatic provisions of the Act and to operate on a voluntary basis only in all Municipal Districts.

## **Voluntary Municipal Insurance**

This plan of Hail Insurance was operative from 1924 to 1936 during which time premiums amounted to \$9,039,306.00 with losses of \$8,846,-984.00. During the years 1924 and 1925 the same rate was charged throughout the entire Province each year except that those whose crops were damaged



by hail paid an excess rate of from 1% to 4%, depending upon the damage suffered. In theory the charging of an extra premium to those who were hailed seemed sound, but in actual practice the amount of money from this source was not sufficiently great to affect the rate to any extent. For example, in 1924 a rate of 7% brought in \$611,576.43, while this surcharge to claimants brought in only \$26,686.84.

Starting with 1926 and from then until 1936 the rates each year varied in different localities depending upon the experience which the Board had had to that time. The rates varied from 5% in the lower loss areas to a high of 20% in the higher loss areas, and the average rate charged during this period was 10.6%. While this rate was sufficient to pay the hail losses it did not cover the hail adjustment expenses and operating expenses and there was an actual shortage in this period of approximately \$770,000.00. Part of this deficit was covered by interest on investments and on outstanding premiums, and the balance came from the reserve which was on hand at the beginning of the period.

As with automatic Municipal Insurance the premium rates were charged as a tax upon the land and were collectable in the same manner as other taxes through the offices of the Municipal Districts without the Board having any say in the matter.

The reasons for the failure of this plan were mainly twofold, the first being insufficient reserves and the second being poor collection of the premiums. At the end of 1926 the reserve and surplus of the Board amounted to \$768,661.82, of which approximately 40% was in cash and securities and 60% in uncollected premiums. By reason of the heavy losses in 1927 this reserve and surplus of \$768,661.82 was reduced to \$112,303.66. The Board owed the Bank \$900,000.00 and its assets consisted of taxes amounting to \$741,000.00 and cash and securities of \$271,000.00.

The reserve and surplus of \$112,303.66 was increased very little in 1928 and 1929 because of fairly heavy hail losses, so that when the heavy hail loss year of 1930 came up there was no back-log of reserve, and a rate sufficiently high to take care of practically all of the losses and expenses had to be set. Because of this lack of reserve these rates were much higher than those being charged by the private companies in the greater part of the Province with the result that the farmers turned away from the Board. This, coupled with the Depression, reduced the Board's business during the following years to a point where it was not economical to continue operation.

Because of the high rates the farmers more or less went on strike about paying their premiums of 1930 and without any collection machinery, other than that provided by the Municipal District Act, the Board was forced to end the year with outstanding premiums of \$1,391,983.04. This feeling of antagonism persisted and coupled with Depression prices was responsible for light collections so that at the end of 1936 there were outstanding premiums of \$1,073,551.94. At this time the Board owed the Bank \$924,000.00.

The Financial Position coupled with the poor record of collections caused the Bank to refuse to continue to finance the Board, and was responsible for a lack of confidence in the plan on the part of the Government.

## **The Present Alberta Hail Insurance Board**

With Municipal Insurance having failed the present Alberta Hail Insurance Board was organized as a straight Co-operative Mutual organization in 1938. Outside of \$25,000.00 borrowed in the Spring of 1938 and repaid together with interest in the Fall of that year it has been financed entirely on the premiums received from its policyholders.

During the eight years it has been in existence it has insured a risk of \$64,000,000.00 and charged premiums of \$5,500,000.00, or approximately 8½ % of the risk, and has paid losses and loss adjustment expenses of slightly more than \$4,000,000.00. You will note the comparison between the rates averaging 8½ % of the risk as compared to the rates under the voluntary municipal plan of 10.6%.

The Board is operated on the voluntary plan of insurance with some 400 agents being employed on a commission basis to write business throughout the Province. As security for the payment of premiums the Board holds a crop lien on all grain grown by a policyholder. While the average rate charged has been 8½ %, its rates vary with each year from 4% to 20% for a full cover policy with reductions of 25% and 40% respectively for 10% and 20% deductible policies. The Board in setting rates has taken into consideration the accumulated experience of this and prior Boards from 1919 to date in each township. It has then grouped townships with more or less the same loss experience into classes and has then set rates in these classes in accordance with the experience. On the basis of the rates now being set and assuming collection of premiums in full the Board could have written the volume of business which has been written by itself and by the Municipal plans since 1919 to date and have paid the losses suffered during that time and would now have a reserve on hand of approximately 10% of the total premiums charged.

Because of a comparatively moderate loss experience during the term of its operation the Board has been enabled to set aside reserve funds of approximately \$700,000.00. With a premium income of \$1,000,000.00 and with a loss experience such as was suffered by the Municipal Hail Insurance Board in either 1927 or 1930, this reserve could be wiped out almost entirely in one year.

In 1945 for example, if the Board had not had re-insurance and had received no interest on investments the premiums would have been short \$225,000.00 of paying the losses and expenses, and 1945 has not by any means been a severe hail loss year as compared to 1927 or 1930. If we had had no reserves or re-insurance in 1945 we would have had to pro rate the losses over the entire province at an average of 75c on the dollar. These results demonstrate forcibly the necessity of a reserve fund being built up if the Board is to continue to pay its losses in full.

In order to protect its reserves the Board has carried re-insurance for the past six years. The contribution being made by the re-insurers toward the 1945 losses is approximately \$75,000.00. The net results for the six years of re-insurance is that we have paid the re-insuring companies \$29,000.00 more than has been paid by them to the Board. This experience is during a period in which the premiums have amounted to approximately \$4,000,000.00. If in any one of the six years we had had a loss such as

the Municipal Hail Insurance Board had in 1927 or 1930 the Board would have benefitted by reason of re-insurance to the extent of several hundred thousand dollars

Insofar as the safety of the plan is concerned ideal distribution of risk would be to have an equal amount of insurance in each and every township of the Province. Such a distribution would tend to make more uniform the loss factor of one year as compared to another, and to reduce peaks of losses.

Realizing that farmers insure more freely in the hazardous hail areas than where the loss is lighter, the Board sets different limits of insurance in an endeavour to equalize the risk in the various townships. Thus in the four most hazardous areas the maximum insurance written by the Board is \$5.00 per acre, in the next three areas, which might be classed as medium loss areas, the maximum set is \$7.50 per acre, while in the four lowest loss areas the maximum is \$10.00 per acre.

The results for 1945 show that of the townships in which business was written, approximately 25% were in the four most hazardous areas, 25% in the three medium loss areas, and 50% in the four lowest rate areas. The average risk per township in all areas was \$6,700.00 with an average of \$7,400.00 in the four highest loss areas, \$8,700.00 in the three medium loss areas, and \$5,300.00 in the four low loss areas.

It must be remembered that the Private Companies try to equalize their risks by townships too, or rather they try to write little or nothing in the most hazardous areas, and a larger volume in other townships, increasing as the loss ratio decreases. They do this by township limits, which means that once a few farmers have taken insurance others may be refused because of the limit already having been reached. Under our plan, however, no crop need be without protection and even in the most hazardous districts a farmer is entitled to receive protection to the extent of \$5.00 per acre.

This Board is operating on an average expense ratio of 18% including hail loss inspections, commissions, collections, office and general expenses. It can be noted here that this percentage depends upon the amount of insurance per acre which is being written. This figure of 18% is on the basis of insurance of approximately \$5.00 per acre, but the percentage would be reduced almost one-half if the average coverage were \$10.00 per acre.

Because of the agitation in some parts of the Province for lower rates the Board instituted in 1943 a Pro Rata plan to operate on the mutual basis and to which the Board donated \$50,000.00 from its reserves. The rates charged under this plan have been approximately 70% of the rates charged under the Standard full cover plan, and while the losses have been paid in full in each of the three years, the original reserve of \$50,000.00 has now been completely used up. The continuation of this Pro Rata plan without any reserves will mean that, inevitably, the losses under such plan will not be paid in full every year.

The support accorded to this Pro Rata plan has been negligible, and although it was being written in every part of the Province in 1945 the total premiums amounted to only \$39,510.62, with losses and expenses amounting to \$58,060.96. The insuring public generally has turned toward the Standard plan under which in 1945 the premiums amounted to \$857,648.20 since they knew that they would receive payment of their losses in accordance with their contracts

While the Board realizes that its reserves can be wiped out in one or two years of very heavy hail losses it inaugurated a plan in 1945 whereby a small part of these reserves would be distributed to its policyholders. This plan provides that if a farmer pays his premium in full with his application and does not file a claim he will be entitled to receive a refund of not less than 5% and not more than 10% of his premium.

It is these policyholders who do not put the Board to any expense in collecting or to any expense in having an adjuster examine the crop that in the opinion of the Board should first receive any benefits and thus it is only to them that in 1945 any refunds were payable.

If we should have a succession of light hail loss years such as we have had during the experience of this Board with the reserves continuing to build up it is planned to extend the refund privilege to more of its policyholders and to enlarge the benefits until eventually probably all might participate substantially.

With the History of the Municipal Hail Insurance Board before it this Board has always felt that collections were of primary importance and thus we find that out of the premiums charged up to and including 1944 in the amount of approximately \$4,500,000.00 every dollar has been collected with the exception of a few amounts totalling less than \$1,000.00. The Board feels that for the plan to be truly co-operative and fair to its policyholders, and to assure payment of losses in full it must collect premiums and accept no excuses for non-payment.

Whereas under Municipal Hail Insurance the rates of premium were not set until the fall, when the losses were known this Board establishes definite rates in the Spring and a farmer when making application knows exactly what his premium will be. This change very definitely meets with the approval of the insuring public, but it does leave the Board in the position that it cannot make up heavy losses by charging a higher rate of premium in the year in which such losses occur.

The criticism often levelled at current plans of Hail Insurance is that they appeal to only a small proportion of the farmers of the Province, whereas we should have a plan to which almost every farmer would want to subscribe. It is admitted that less than 15% of the farmers insure their crops against hail each year and that probably not more than one-third of the farmers have ever insured their crops against this catastrophe.

To meet this situation the Board is always considering ways and means of giving better coverage to its policyholders and has made improvements in the plan from time to time. It appoints agents with a view to leaving no part of the Province without facilities for insuring, and it encourages these Agents to canvass each and every farmer in his district. The Board's program of advertising by radio, magazine, newspaper, etc., also tends toward popularizing hail insurance generally.

In the most hazardous areas a lower rate would bring an increase in insurance. This increase though would not be as great as might be expected, and our records show that of the farmers in the townships which now comprise our 16% and 20% rate areas only about 50% have insured in any year during the operation of this Board even when the rates were 12% or less. In 1945, for example, the business written in these townships at rates of 16% and 20% was only 23% less than that written in 1941 at rates of 12% or less.

Approximately  $7\frac{1}{2}\%$  of the farmers in the Province live in these townships, and generally speaking it is an area which produces good crops, and in which the farmers have an average income somewhat higher than most of the rest of the Province. It is believed that at one time or another practically all of these farmers do insure, but many of them operate on the "hunch" system. If these men get a "hunch" it is going to hail they insure, but otherwise they leave their crops uninsured.

In the least hazardous hail areas where we charge a rate of 4% we insured in 1945 approximately  $1\frac{1}{3}\%$  of the farmers resident there. At a rate such as this it would appear to be only good business practice for a farmer to insure in every year—the amount of insurance to be carried depending upon crop conditions. At this rate, being hailed out once in 25 years would return a farmer his total premium, and it is doubtful if there are many farms which have escaped receiving at least some hail during any such period. According to our records the insurance losses might be heavier if the farmers were insuring consistently. Quite frequently we find that when hail does hit a district in the low loss area only one or two farmers are insured, but the next year there is quite an influx of business which gradually decreases until the next storm occurs when only a few are insured.

In our opinion the main reason for so few farmers being insured is that they are not insurance-minded. A great many when they do insure and are not hailed feel that they are paying out a premium for nothing and that it is a straight loss, rather than looking upon this insurance premium as a necessary charge to operations each year. We feel sure that statistics of other types of insurance among the farmers of this Province would show similar results as does hail insurance, and that very, very few insure consistently against any hazard.

This could be remedied to some extent by really selling the farmers on the idea of insurance, although it would have to be a yearly process of education for many years, and it would be a very expensive process. We admit that probably the majority of our agents are not, in any sense of the word, salesmen, but since it is only a part-time job, with at most net rewards of only a couple of hundred dollars, we cannot expect always to attract men who have initiative and ability sufficient to put on a proper selling campaign.

The arguments with reference to the most hazardous hail districts and to the low loss areas are true in a greater or lesser degree in those districts between these extremities. Good crop conditions and a few strategic hail storms at the end of June and the first of July do more to bring in business than any other factors, and it is in such years that we have our greatest volume of business.

It is interesting to note that as the hazard of hail increases the percentage of farmers who insure increases as is shown by our 1945 experience as follows:

Rate Area	Percent of farmers in Rate Area Who Insured
4%	$1\frac{1}{3}\%$
5% to 7%	$8\frac{1}{4}\%$
8% to 9%	$10\frac{1}{2}\%$
10% to 14%	$15\frac{1}{4}\%$
16% to 20%	22%

More than one-half of the farmers of the Province live in districts where the rate charged is 7% or less, and just over 6% of these farmers insured while in the most hazardous areas where our rate is 16% and 20% there are 7½% of the farmers and 22% of them are insured. Taking the Province as a whole there are probably not more than one-third of the farmers who have ever taken out hail insurance and it appears at the present time that two-thirds of the farmers are definitely not interested in insuring their crops against hail.

As this plan of insurance is far ahead of the original compulsory municipal plan of 1914 so we hope that the next thirty years will show corresponding improvement and that out of trial and error may come plans which will receive more and more support from the farmers of the Province. Today there are many improved features in this plan as compared to its first year of operation, and whether this plan continues or a new one is adopted experience and ideas will develop improvements that will be to the greater benefit of agriculture.

## **Proposals**

In considering plans for the future of Hail Insurance some of the many and varied suggestions already put forward by interested parties should be reviewed. Some of these plans together with a few of the results that experience has shown might reasonably be expected are outlined here.

## **Compulsory Insurance**

There has always been some agitation for a compulsory plan based on the premise that if all were insured the cost per acre would be much less than it is now, and using the argument that conditions generally would be greatly improved by reason of all receiving some returns from their crops in an area where hail had pretty well destroyed everything.

It must be agreed that this agitation comes practically exclusively from districts which are subject to hail storms year after year. The farmers in these districts hope that they may obtain their insurance at much less than cost by bringing everyone into the plan. It must be noted here that Compulsory Insurance was discarded in 1918, and it was discarded not by a few farmers, but by the farmers' organization as it existed at that time.

In considering whether or not the cost per acre would be less than it is under a voluntary plan we must consider the factors making up the cost of hail insurance. These five factors together with the proportion of the policyholder's dollar which has been paid for each during the experience of the present Hail Insurance Board is as follows:

1. Hail Losses—70c.
2. Hail Loss Inspection—4c.
3. Commissions and Collection Expense—7½c.
4. Office and General Expense—6½c.
5. Reserves—12c.

Before coming to a decision it is necessary to consider each of these factors separately. Under the present Alberta Hail Insurance plan the townships in the Province are divided into eleven different classes, in each

of which the townships comprising it have more or less the same hail loss experience. The first question then is if every acre of crop were insured would the hail loss experience of these various classes be changed materially?

We doubt that there would be any great change. For example, in our highest rate area where our records show the loss to be approximately 15% of the risk we have experience to the extent of 50% of the acreage. We contend that in this area the crops which are not insured are subject to similar losses to those which are insured with the result that even if every acre therein were insured we would still anticipate our loss ratio to be approximately 15%.

In our lowest loss area where we charge a rate of 4% we count on a loss ratio of not more than 3% of the risk. On this basis severe hail storms occurring oftener than once in thirty years upon crops which are insured cause a loss to the Board. It is doubtful that if all of the crops were insured in any part of this Province you could count on having hail storms as infrequently as this.

Our records tend to prove that under a plan such as this there is no area in which insurance could be written at a rate of 4% and probably the minimum rate would be 5%, 6% or more. This is proven by the fact that in many townships we frequently have a light risk in the year in which a hail storm strikes followed by a much heavier risk in the next year, which gradually decreases until another hail storm occurs. If the same system of rating were in effect then we believe that the part of the rate in each class which is necessary to pay the hail losses would have to be as great as it now is and might even have to be greater.

Taking the Province as a whole there would be a reduction in the average percentage of loss from that which is now being shown. This is true because there is now being insured a much greater proportion of the land in the high loss areas than there is in the low loss areas.

Statistics show that the loss under a Voluntary Hail Insurance plan will average out somewhere in the vicinity of 8% of the risk, but we believe that with Compulsory Insurance it might average out as low as 6%. On this basis the average rate would be reduced about 2%, but with rates being set in accordance with loss experience it would mean that two or three times as many people would be paying the high rates and fifteen or twenty times as many people would be paying the low rates as are now paying them under a Voluntary plan. In other words, we do not believe that the loss factor in the groups of townships would be reduced from that which is now shown by our records.

These observations are based on a Compulsory Plan of insurance against damage by hail to crops in the Province whether such damage be small or great and whether or not the remaining crops would show a profit on the year's operations. It is quite possible that serious objection would be taken to such a plan by farmers who felt that their crops were not likely to be damaged by hail, but would suffer from other hazards, and that they would be contributing in many cases to farmers, who with insurance money and with the remaining crops, would show a considerable profit, while they themselves would have a loss on the year's operations.

For this reason then any such plan might have to incorporate a provision that no award would be allowed if the remaining crop was sufficient to take care of the cost of the year's operations or that the award would be reduced to such an extent that the insurance and the crop together would not exceed some predetermined figure such as \$10.00 per acre. With this provision the losses would be reduced considerably, although records tend to indicate that the premium rate would not be affected to a greater extent than 25%.

That this type of policy would not be satisfactory to the farmers in the heavy loss areas is evidenced by the fact that they want a full coverage policy, and are opposed to a deductible clause even though a policy with such a clause gives excellent protection where the damage is severe. For example, a policy with a 20% deductible clause can be written at a rate of 60% of the full cover rate, and while nothing is paid for a light loss these farmers in the heavy hail loss areas in such cases usually still have a profitable crop, while if they are hailed out completely they receive 80% of the amount which they would have received under a full cover policy.

The next factor affecting the rate is the Loss Inspection Expenses, and here again we doubt that there would be much saving by a Compulsory Plan over the plan now in effect. We find it difficult to obtain on a part-time basis the services of men who are competent and who will take the time and trouble to examine the crops properly and allow the right percentage of loss, and we find it even more difficult to obtain the services of supervisors who have sufficient knowledge, executive ability, etc., to make sure that the work is allotted to the inspectors with a minimum amount of travelling and to oversee and advise the men in their charge.

Whereas we now have about 35 men a Compulsory Plan would require from 100 to 150 men, and while travelling would be reduced somewhat the difficulties of organization would take up this saving and we would anticipate little or no reduction over all in the Loss Inspection Expenses. In any case the cost of this item is only 4c of the policyholder's premium dollar and any saving would be comparatively insignificant.

At first glance it would appear that Commissions and Collection Expenses would be eliminated. While no commission would require to be paid any plan that calls for listing of acreage in crop would mean considerable travelling to obtain the information which would have to be compiled for rating purposes. Under a Compulsory Plan also a great deal of time and effort would have to be expended in collecting the premiums, particularly as many of the farmers would be hostile to the plan and would use every means in their power to evade payment of the premium. While there might be some reduction the cost now is only 7½c and a saving of 25% of this amount would make little difference in the final rate.

Office and General Expense on such a volume might show a reduction of 25% from 6½c to approximately 5c, but here again such a saving would not materially reduce the rate to be charged.

These expense percentages would be reduced almost one-half if the insurance coverage were \$10.00 per acre instead of \$5.00 per acre, which has been the average written.

In any Compulsory Plan reserves would be just as necessary as they are in a Voluntary Plan, and while the experience of the past eight years shows 12c being placed in the reserve fund a heavy hail loss period of two or three



years could easily change this picture to show losses as 82c instead of 70c and to show reserves as Nil instead of 12c. As the reserve must be in relation to the business written no saving can be anticipated on this part of the policyholder's dollar.

## **Compulsory Plan Taking Into Account The Residual Value of the Crop**

This could be on a basis similar to the P.F.A.A. crop insurance plan and there seems to be no valid reason now why hail damage should not be taken into consideration in all cases under this plan. It seems reasonable that representations might be made to the Dominion Government to include not only in emergency areas but also in crop failure areas damage to crops caused by hail.

For the Dominion Government to adopt this plan would not relieve the Provincial Government of its obligation to provide some sort of co-operative hail insurance for the farmers of the Province. The payments under the P.F.A.A. are entirely inadequate to take care of the costs of operation and it seems only reasonable that each farmer should have an opportunity of obtaining protection to the extent of his costs.

The costs of farm operation vary in different parts of the Province and under such a plan different coverage would have to be given depending upon the area of the Province concerned. In general, however, costs cannot be considered to be much under \$10.00 per acre, and this amount should be the objective of any hail insurance plan, particularly where crops are grown on summerfallow land.

If a plan of Compulsory Hail Insurance, taking into consideration the residual value of the crops, were to be adopted by the Provincial Government certain difficulties would have to be overcome, among which would be—

(a) The variability of cost of production depending upon whether irrigated or dry land, and the type of farming practiced, that is, whether summerfallow, etc., and the kind of crop being produced.

(b) The necessity of determining the value of a crop prior to the hail storm so that no payment would be made in excess of the actual monetary loss to the crop from hail, which would require periodic inspections of all crops subsequent to insurance becoming effective, and prior to damage occurring by hail.

(c) The levying of the premium and the collection of the same. Would the premium be charged on the basis of the acreage in crop which would involve the obtaining of this information in the Spring with the premium being collected as a crop lien or as taxes? Or would the plan be handled on the basis of the P.F.A.A. with information only as to the crops damaged and not as to the crops insured, and if so in what manner the premium under this plan would be collected? The Province at present has no right to make deductions from grain deliveries, and even if it had would this be considered a fair method of collecting the premiums since much of the grain is fed either by the grower or by neighbors who purchase the grain with possibly no record of sale being made?

## Voluntary Plan With Rates Set at Less than Cost

The suggestion put forward by the Hail Insurance Board of 1936 was that the townships in the Province be divided into five classes with rates varying from 5% to 9%, and that the Provincial Government pay all losses in excess of the premium less the cost of administration.

Figures presented by the Board at that time on the basis of its experience from 1919 to 1936 showed an average annual deficit of \$124,775.00. The Board also presented figures showing that on a basis of rates of from 5% to 12% the average annual deficit would have been \$72,016.00 and on a basis of rates of from 6% to 12% the average annual deficit would have been \$28,942.00. According to the figures presented by them the greatest amount which the Government would have had to put up in any one year under these three suggestions would have been \$883,688.00, \$796,367.00 and \$737,360.00 respectively.

As a variation of this plan and if the Government felt that it should assume some responsibility for the losses in the most hazardous districts the present Board might operate on the same basis as it does now in all areas having a rate of from 4% to 14%, and it might set an arbitrary rate of 15% in the other two areas in which the rates are now 16% and 20%. This 15% rate would allow a loss ratio of approximately 12% and in any year where the losses exceeded 12% in this area the Government would bonus the Board to the extent of such difference.

According to the records of this Board from 1938 to date the greatest amount which the Government would have had to put up in any year was \$176,132.00. During this period the Government would have contributed in each of four years in amounts of \$18,878.00, \$102,207.00, \$166,684.00 and \$176,132.00. Contributions on the basis of losses as shown by the Municipal Hail Insurance Board in 1927 and 1930 would have been much greater than this. These figures are calculated on the basis of the business actually written and do not take into consideration the increased loss by reason of a greatly increased volume of business in these hazardous areas.

If the residual values of the crops were considered and awards paid only to the extent that the crop was reduced by reason of hail below a predetermined figure the rate might be set, say at 10% in place of 15% on the understanding that the Government would contribute if the losses in any year exceeded 7% or 7½%. No figures are available as to how much this would cost, but probably it would be similar to the amounts anticipated under the plan outlined in the preceding paragraph.

## Conclusions

In the opinion of the Board the History as outlined demonstrates:

(a) The necessity of some form of Government sponsored Co-operative Hail Insurance Plan if every farmer is to be given the right of obtaining insurance. Other mutuels failed with loss to their insurers and are unlikely to return to the field. Private Companies refuse to give protection to those living in well defined hail areas and limit the number to be granted insurance in other parts of the Province.

(b) The desire for a Voluntary plan of insurance as opposed to Compulsory or Automatic plans. The discarding of the Compulsory plan of



1914-1918 with unanimous approval of the U.F.A., Association of Municipal Districts and representatives of insurers gathered in annual meeting and the change from the Automatic to the Voluntary plan by decision of the representatives of the Municipal Districts, in which the plan was operative, and the Board itself support the view that the insuring public prefer a plan under which they can insure or not as they see fit.

(c) The necessity of assuring payment of losses in full. The lack of support of the Pro Rata plan at rates approximately 70% of those charged under the Guaranteed plan shows this clearly. In no year during the three years in which the Pro Rata plan has been in operation has the premium under the plan exceeded \$61,979.93 with the support of 622 farmers, although the greatest premium in any year in this period under the Standard plan has been \$857,648.20 from 10,180 farmers.

(d) The severity of hail losses in this Province and the necessity of continuing to build substantial reserves if these losses are to be paid in full. Government insurance with its six-year loss of \$550,000.00, private company insurance with its twenty-five-year loss of \$4,000,000.00, and voluntary municipal insurance with its thirteen-year loss of \$770,000.00, demonstrate the necessity of building up substantial reserves and prove beyond a shadow of doubt that the reserves of the present Board, as yet, are far from adequate.